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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* WILLIAM J. JONES, FRANK M. CSULITS, ROBERT J. KLEIN,  
and CURTIS W. HALLOWELL

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Appeal 2010-002640  
Application 09/967,232  
Technology Center 3600

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Before: JOHN C. KERINS, WILLIAM V. SAINDON, and  
MICHAEL C. ASTORINO, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-6, 11, 12, 15, 17-20, 22-29, 33, 35, 36, 38-40, 49-56, 59, 65, 68<sup>1</sup>, 79, 80, 87, and 89. Claims 7, 13, 14, 16, 21, 30-32, 34, 37, 41-48, 57, 58, 60-64, 66, 67, 69-78, 81-86, and 88 are withdrawn. Claims 8-10 and 90-111 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

Claim 1, reproduced below, is illustrative of the claimed subject matter.

1. A funds processing system including at least one funds processing machine in which a user inputs currency bills and substitute funds, the at least one funds processing machine comprising:

an input receptacle configured to receive a stack of a mixed combination of currency bills and substitute funds;

a processing module coupled to the input receptacle and configured to receive the currency bills and substitute funds from the stack in the input receptacle and to process the currency bills and substitute funds, the processing module being configured to distinguish currency bills from substitute funds and valid substitute funds from invalid substitute funds; and

a return receptacle coupled to the processing module and configured to return the substitute funds to the operator of the funds processing machine.

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<sup>1</sup> Appellants indicate that claims 69 and 70 are appealed (*see* App. Br. 2, 17) but also withdrawn (*see* App. Br. 2, 60). The Examiner states that the Appellants' statement of the claims is correct (Ans. 2) but presents a rejection of claims 69 and 70 (Ans. 5). However, claims 61, 62, and 64, from which both claims depend, are withdrawn. Accordingly, for purposes of this appeal, we treat claims 69 and 70 as withdrawn.

*References*

The Examiner relies upon the following prior art references:

Ueshin	US 4,690,268	Sep. 1, 1987
Yamashita	US 5,293,033	Mar. 8, 1994
Izawa	US 5,420,406	May 30, 1995
Storch	US 5,548,110	Aug. 20, 1996
Molbak	US 5,620,079	Apr. 15, 1997
Roustaei	US 5,777,314	Jul. 7, 1998
Munro	US 5,790,697	Aug. 4, 1998
Ahlquist	US 6,112,982	Sep. 5, 2000
Izawa	US 6,264,556 B1	Jul. 24, 2001
Walker	US 6,754,636 B1	Jun. 22, 2004

*Rejections*

- I. Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.
- II. Claims 1, 5, 6, 11, 15, 17-20, 22-24, 33, 35, 36, 38-40, 49, 56, 59, 65, 68, 79, 80, 87, and 89 are rejected under 35 U.S.C. § 103(a) as unpatentable over Munro and Izawa ('406).
- III. Claims 2-4 and 51-54 are rejected under 35 U.S.C. § 103(a) as unpatentable over Munro, Izawa ('406) and Izawa ('556).
- IV. Claim 12 is rejected under 35 U.S.C. § 103(a) as unpatentable over Munro, Izawa ('406), and Molbak.
- V. Claim 25 is rejected under 35 U.S.C. § 103(a) as unpatentable over Munro, Izawa ('406), and Ueshin.
- VI. Claims 26-29, 50, and 55 are rejected under 35 U.S.C. § 103(a) as unpatentable over Munro, Izawa ('406), Ahlquist, Yamashita, Storch, Roustaei, and Walker.

SUMMARY OF DECISION

We AFFIRM.

## OPINION

### Rejection I: Indefiniteness

Claim 1 requires, in relevant part, a return receptacle “configured to return the substitute funds to the operator.” The Examiner found that it was not clear “whether the return receptacle is ‘configured’ to return substitute funds.” Ans. 4. However, as Appellants point out (App. Br. 15-16), the claim is broad enough to read on a receptacle that holds a stack of substitute funds, allowing the funds to be “passively” returned to the operator. As such, it appears the Examiner is improperly equating breadth with indefiniteness. *In re Johnson*, 558 F.2d 1008, 1016 n.17 (CCPA 1977). Accordingly, we do not find claim 1 to be indefinite, and we do not sustain Rejection I.

### Rejection II: Munro and Izawa ('406)

Appellants argue claims 1, 11, 15, 17-20, 22, 33, 35, 36, 38-40, 49, 56, 59, 65, 68, 79, 80, 87, and 89 as a group. App. Br. 17-25. We select claim 1 as representative. Appellants separately argue claims 5, 6, 23, and 24. App. Br. 25-27. We select claim 5 as representative, and address claim 5 after we address claim 1.

### A

Claim 1 requires a funds processing system having an input receptacle and a return receptacle, as well as a processing module configured to distinguish currency from substitute funds. The Examiner found that Munro teaches a funds processing system in accordance with claim 1, except that

Munro does not teach a bar code reader<sup>2</sup>. Ans. 5-6. The Examiner found that Izawa ('406) describes an evaluation unit (bill validator) with a barcode reader (24, 25). Ans. 6; *see also* Izawa ('406), col. 2, ll. 27-29 ("a novel device which can validate both . . . bills and bar coded documents"). The Examiner concluded that it would have been obvious to include the barcode reader of Izawa ('406) with the funds processing system of Munro in order to process barcoded documents and currency from the same stack. *Id.*

Appellants first argue that Izawa ('406) fails to disclose an input receptacle that receives a stack of a mixed combination of bar coded documents and currency. App. Br. 20. The Examiner does not rely on Izawa ('406) to teach an input receptacle, however, because Munro already teaches an input receptacle (12) capable of holding a stack. Ans. 5-6, 13; Munro, col. 27, ll. 45-48.

Appellants next argue that Izawa ('406) fails to "contemplate providing a stack of any combination of documents at the inlet." App. Br. 21. However, as noted above, the Examiner's proposed combination of Munro and Izawa ('406) does not include the input receptacle of Izawa ('406) because Munro teaches an input receptacle. Accordingly, Appellants' argument is not commensurate with the Examiner's rejection.

Appellants then argue that "the only stack of documents disclosed by either reference is the stack of currency bills taught by Munro." App. Br. 21. However, both systems of Munro and Izawa ('406) are capable of processing multiple types of documents. *See* Munro, col. 27, ll. 37-42 ("the present invention may be employed in conjunction with stock certificates, bonds, and postage and food stamps"); Izawa ('406), col. 2, ll. 24-29 ("a

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<sup>2</sup> Notably, however, claim 1 does not require a bar code reader or any particular structure to distinguish currency from substitute funds.

novel device which can validate both . . . bills and bar coded documents”). Accordingly, the preponderance of the evidence before us supports the Examiner’s conclusion that the combination of Munro and Izawa (‘406) renders obvious an input receptacle configured to receive a stack of mixed documents (such as currency bills and substitute funds).

Appellants next argue that the Examiner’s proposed combination “would improperly require the principle of operation of one of the references to be modified . . . because the teachings of Izawa ‘406 prohibit the input receptacle from having a stack of bills,” and that thus, “Munro and Izawa ‘406 disclose extremely different approaches for processing bills.” App. Br. 22-24. The Examiner’s proposed combination merely combines the barcode scanning feature of Izawa (‘406) with Munro’s document system, and does not require bodily incorporation of the input, transport, or output structures of Izawa (‘406). *See* Ans. 5-6; *see also In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference”). Izawa (‘406) describes a barcode scanning sensor 24 or 25 which sends barcode signals to a CPU as the document moves along the transport path. Izawa (‘406), col. 6, l. 59 to col. 7, l. 12. The barcode sensors are optical. *Id.* at col. 4, ll. 32-34. In Munro, a CPU likewise processes signals from scanning heads as the document moves along the transport path. *See, e.g.,* Munro, col. 27, ll. 48-54. The scanning heads can be optical scan heads. *Id.* at col. 28, ll. 5-6. Accordingly, we find both systems operate according to the same principles, by transporting documents into the field of view of an optical sensor which sends signals to a CPU. Thus, Appellants’ argument that the principle of operation of the prior art would be modified is unfounded.

Appellants argue that the Examiner relied on improper hindsight because “neither Munro nor Izawa ‘406 contemplate processing a stack of a mixed combination of both currency bills and documents of another type, and there is no reason to apply their teachings to solve the problem solved by the claimed invention.” App. Br. 24-25; Reply Br. 3-6. First, it is error to “hold[] that courts and patent examiners should look only to the problem the patentee was trying to solve.” *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“any need or problem known in the field ... and addressed by the patent can provide a reason for combining the elements in the manner claimed”). Second, to support a conclusion of obviousness, the Examiner must identify “some articulated reasoning with some rational underpinning.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (*cited with approval in KSR*, 550 U.S. at 418).

In this case, the Examiner found the inclusion of the barcode scanner of Izawa (‘406) would allow Munro to handle “barcoded documents placed in the same stack of documents as paper currency.” Ans. 6. Indeed, Izawa (‘406) teaches that, because gift certificates often contain bar codes, it is desirable to have a device that can “validate both . . . bills and bar coded documents.” Izawa (‘406), col. 2, ll. 24-29. Appellants do not present any compelling arguments or evidence that the Examiner’s proposed combination would be unpredictable. Given the ubiquitous nature of barcode scanners and the lack of detailed description in Izawa (‘406) as to how barcode scanners 24, 25 operate, we find no evidence that one of ordinary skill would consider the addition of barcode sensing abilities to the document counting system of Munro unpredictable or beyond the level of ordinary skill in the art. As such, the Examiner’s proposed modification of Munro’s document system to include Izawa (‘406)’s barcode scanning



capabilities appears to be nothing more than improving one device using a technique known to improve a similar device. *See KSR*, 550 U.S. at 417 (“if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill”).

In light of the above, Appellants’ arguments that the Examiner erred in rejecting claims 1, 11, 15, 17-20, 22, 33, 35, 36, 38-40, 49, 56, 59, 65, 68, 79, 80, 87, and 89 are unpersuasive and we sustain the Examiner’s rejection of these claims.

## B

Claim 5 requires, in relevant part, that the processing module is configured to scan and count currency bills and substitute funds “at a high rate of speed.” The Examiner found that Munro teaches operation at a range of speeds. Ans. 5, citing Munro, col. 43, ll. 10-15, 62-67 (“bill processing speeds at which currency recognition systems must operate are substantially high ( . . . 800 to 1500 bills per minute).”). Appellants argue that “there is absolutely no evidence that the barcode readers of Izawa ‘406 could operate at the high speeds taught by Munro.” App. Br. 27.

Munro states that the speeds “at which *currency recognition systems must operate*” (emphasis added) are high. Munro, col. 43, ll. 10-11. Munro is describing currency recognition systems in general; not solely Munro’s own system. Accordingly, Munro teaches that it is known in the art that currency recognitions systems operate at high speeds. While Izawa (‘406) does not explicitly describe the speed at which it operates, Izawa (‘406) describes an optical currency recognition system (like Munro) that includes bar coded documents (*see, e.g.*, col. 2, ll. 24-29), and there is no indication

that the system of Izawa ('406) would operate at a speed unusual for the art. As such, and without persuasive argument or evidence to the contrary, the Examiner's conclusion that it would have been obvious to a person of ordinary skill in the art to utilize a high speed processing module is reasonable and supported by rational underpinnings. *See also KSR*, 550 U.S. at 418 ("the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ"); *Perfect Web Tech., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009) ("while an analysis of obviousness always depends on evidence . . . it also may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference"). Consequently, Appellants' arguments that the Examiner erred in rejecting claims 5, 6, 23, and 24 are not persuasive.

*Rejection III: Munro, Izawa ('406), and Izawa ('556)*

Appellants argue claims 2-4 and 51-54 as a group. App. Br. 28-29. We select claim 2 as representative. Claim 2 requires that the "substitute funds" are "casino script." The Examiner found that "Izawa" (presumably '556), discloses scrip (in a document recognition device). Ans. 6. The Examiner concluded that it would have been obvious to configure the validator of Munro to "accept as many formats of cash available" to increase the use of the machine. Ans. 7.

Appellants argue that none of the cited references disclose or suggest "processing of a mixed combination of formats by a single apparatus." App. Br. 29. However, Munro, Izawa ('406), and Izawa ('556) each explicitly teach devices capable of recognizing different documents. Munro, col. 2,

Il. 30-34 (“an apparatus . . . for discriminating among a plurality of document types”); Izawa (‘406), col. 2, Il. 24-29 (“device which can validate . . . bills and bar coded documents”); Izawa (‘556), col. 3, Il. 48-50 (“a bill validator . . . provided to accept money . . . in the form of bills of various denominations”); col. 4, Il. 1-4 (“bill validator [can] accept coded coupons, scrip or secure paper”). Appellants do not discuss these disclosures, which directly support the Examiner’s rejection. Nor do Appellants raise any other arguments with respect to this rejection. Thus, we sustain Rejection III.

Rejection IV: Munro, Izawa (‘406), and Molbak

Appellants rely on the unpersuasive arguments addressed in Rejection II, *supra*. App. Br. 29-30. As such, we sustain Rejection IV.

Rejection V: Munro, Izawa (‘406), and Ueshin

Claim 25 requires a facing mechanism configured to rotate the orientation of the substitute currency media. The Examiner found that Ueshin teaches a facing mechanism that reverses the orientation of a banknote. Ans. 8. Appellants argue that Ueshin is only directed to currency bills and not to substitute currency media. App. Br. 30. This argument is unpersuasive because it only considers the references in isolation, whereas the rejection is based on the combination of Munro, Izawa (‘406), and Ueshin. *See In re Merck & Co. Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Instead, Appellants argue that the cited references do not teach or suggest the subject matter of claim 25, but do not directly address the Examiner’s rejection, which is predicated on a combination of references. App. Br. 30.

We find no evidence that the teachings of the document rotating device of Ueshin would be inapplicable or otherwise unpredictably applied to the document processing device of Munro, as modified by Izawa (‘406). Likewise, we find no evidence that the device of Ueshin would be incapable

of rotating a document merely because of what is printed on the document. *See In re Schreiber*, 128 F.3d 1473, 1478-79 (Fed. Cir. 1997) (To satisfy the functional limitations in an apparatus claim, the prior art apparatus must be capable of performing the claimed function); *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983) (“[w]here [descriptive material] is not functionally related to the substrate, the [descriptive material] will not distinguish the invention from the prior art in terms of patentability”). Accordingly, the Examiner’s proposed modification of the document processing device of Munro to further include a document rotating structure, as taught in Ueshin, appears to be nothing more than improving the similar device in Munro to predictably take advantage of the rotating capability taught by Ueshin. *See KSR*, 550 U.S. at 417. As such, we sustain Rejection V.

*Rejection VI: Munro, Izawa (‘406), Ahlquist, Yamashita, Storch, Roustaei, and Walker*

Appellants argue claims 26-29, 50, and 55 as a group, only specifically arguing claim 26. App. Br. 31-34. We select claim 26 as representative. Claim 26 requires a first and second media detector configured to detect at least one characteristic of a first and second type of substitute currency media, respectively. Appellants argue that the cited references do not discuss arranging multiple barcode readers<sup>3</sup> in a document processing apparatus to read different types of substitute currency media. App. Br. 34.

The Examiner found that Izawa (‘406) has barcode sensors in addition to magnetic and infrared sensors. Ans. 8. The magnetic sensor determines if the document is currency as well as the value of the currency (col. 5,

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<sup>3</sup> Claim 26 does not require either media detector to be a barcode reader.

ll. 57-59, col. 6, ll. 19-24), the bar code sensor provides information as to whether the document contains a genuine bar code (col. 6, ll. 45-47, 59-66), and the infrared sensor determines if the document is a valid coupon (col. 6, l. 68 to col. 7, l. 5). Thus, Izawa ('406) describes two media detectors (bar code, infrared) used to distinguish between two media types (valid/invalid coupons based on barcode, valid/invalid coupons based on infrared image), in addition to the currency detector (magnetic sensor) used to distinguish between currency and other media. As such, Appellants' argument that the Examiner's proposed combination does not teach or suggest first and second media detectors configured to detect at least one characteristic of a first and second type of substitute currency media is unpersuasive.

Appellants argue that Ahlquist and Yamashita are non-analogous art. App. Br. 34. However, the teachings of these references are not relevant to claim 26. Appellants do not present any further arguments with respect to claim 26. In light of the above, we sustain Rejection VI.

#### DECISION

We reverse the Examiner's rejection of claims 1-6 under 35 U.S.C. § 112, second paragraph.

We affirm the Examiner's rejections of claims 1-6, 11, 12, 15, 17-20, 22-29, 33, 35, 36, 38-40, 49-56, 59, 65, 68, 79, 80, 87, and 89 under 35 U.S.C. § 103.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

#### AFFIRMED

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